WHAT IS CLAIMED IS:

1. An egg freezing and storing instrument comprising:

an egg freezing and storing tube which is made of a liquid nitrogen-resistant material and can be heat-sealed; and

a metal cylindrical protection member for protecting said egg freezing and storing tube,

wherein said egg freezing and storing tube comprises a body part; an egg-storing small-diameter part having a smaller outer diameter than said body part and having an inner diameter of 0.1mm to 0.5mm; a front-side heat-sealable portion at which said small-diameter part can be heat-sealed at a front side of said small-diameter part after an egg is collected in said egg-storing small-diameter part thereof; and a rear-side heat-sealable portion at which said body part can be heat-sealed at a rear side thereof, after said egg is collected in said egg-storing small-diameter part; and

said cylindrical protection member has a tubular part for accommodating said front side of said small-diameter part of said egg freezing and storing tube; and a semi-tubular part for accommodating a portion of said small-diameter part of said egg freezing and storing tube not accommodated in said tubular part and a front portion of said body part.

2. An egg freezing and storing instrument according to claim 1, further comprising an egg-collecting sucking tool having a connection part to which a rear end of said body part of said egg freezing and storing tube can be connected.

3. An egg freezing and storing instrument according to claim 1, wherein said semi-tubular part of said cylindrical protection member has a holding part for holding said body part of said egg freezing and storing tube.

4. A method for freezing and storing an egg by using an instrument for freezing and storing an egg which comprises an egg freezing and storing tube which is made of a liquid nitrogen-resistant material and can be heat-sealed and has a body part and an egg-storing small-diameter part having a smaller outer

diameter than said body part, and a metal cylindrical protection member for protecting said egg freezing and storing tube having a tubular part for accommodating said front side of said small-diameter part of said egg freezing and storing tube and a semi-tubular part for accommodating a portion of said small-diameter part of said egg freezing and storing tube not accommodated in said tubular part and a front portion of said body part,

wherein said method comprising the steps of:

preparing said egg whose intracellular fluid has been replaced with an equilibrium fluid and extracellular fluid has been replaced with a vitrified fluid;

collecting said egg into said small-diameter part of said egg freezing and storing tube, together with said vitrified fluid;

heat-sealing one side of said egg freezing and storing tube at a front portion of said small-diameter part and heat-sealing the other side of said egg freezing and storing tube at a portion of said body part;

mounting a metal protection member on said heat-sealed egg freezing and storing tube; and

supplying said egg freezing and storing tube on which said protection member has been mounted into a liquid nitrogen tank.

5. A method for freezing and storing an egg by using an instrument for freezing and storing an egg which comprises an egg freezing and storing tube which is made of a liquid nitrogen-resistant material and can be heat-sealed and has a body part and an egg-storing small-diameter part having a smaller outer diameter than said body part, a metal cylindrical protection member for protecting said egg freezing and storing tube having a tubular part for accommodating said front side of said small-diameter part of said egg freezing and storing tube and a semi-tubular part for accommodating a portion of said small-diameter part of said egg freezing and storing tube not accommodated in said tubular part and a front portion of said body part, and an egg-collecting sucking tool having a connection part to which a rear end of said body part of said egg freezing and storing tube can be connected,

wherein said method comprising the steps of:

preparing said egg whose intracellular fluid has been replaced with an equilibrium fluid and extracellular fluid has been replaced with a vitrified fluid;

preparing a unit including said egg freezing and storing tube and said sucking tool mounted on a body part of said egg freezing and storing tube;

collecting said egg into said small-diameter part of said egg freezing and storing tube, together with said vitrified fluid by operating said sucking tool;

heat-sealing one side of said egg freezing and storing tube at a front portion of said small-diameter part and heat-sealing the other side of said egg freezing and storing tube at a portion of said body part with said sucking tool mounted on said egg freezing and storing tube;

removing said sucking tool from said egg freezing and storing tube;

mounting a metal protection member on said heat-sealed egg freezing and storing tube; and

supplying said egg freezing and storing tube on which said protection member has been mounted into a liquid nitrogen tank.

6. An egg freezing and storing instrument comprising:

an egg freezing and storing tube which is made of a liquid nitrogen-resistant material and can be heat-sealed; and

a metal cylindrical protection member mounted on said egg freezing and storing tube, for protecting said egg freezing and storing tube,

wherein said egg freezing and storing tube comprises a body part; an egg-storing small-diameter part having a smaller outer diameter than said body part; a front-side heat-sealable portion at which said small-diameter part can be heat-sealed at a front side of said small-diameter part after an egg is collected in said egg-storing small-diameter part; and a rear-side heat-sealable portion at which said body part can be heat-sealed at a rear side thereof after said egg is collected in said egg-storing small-diameter part,

said cylindrical protection member has a tubular part for accommodating said front side of said small-diameter part of said egg freezing

and storing tube; a semi-tubular part, disposed at a rear end of the tubular part, for accommodating a portion of said small-diameter part of said egg freezing and storing tube not accommodated in said tubular part and a front portion of said body part; and a holding part, disposed at a rear end of said semi-tubular part, for holding said body part of said egg freezing and storing tube,

said cylindrical protection member is slidable to a rear side of said egg freezing and storing tube to allow said small-diameter part to be exposed to the outside from a front end of said cylindrical protection member; and

said egg freezing and storing tube has a slip-off prevention part, for preventing said cylindrical protection member from slipping off from said egg freezing and storing tube, formed on said body part thereof or in the vicinity of a boundary between said body part thereof and said small-diameter part thereof.

7. An egg freezing and storing instrument according to claim 6, wherein said slip-off prevention part is formed as a diameter-widened part formed in said body part of said egg freezing and storing tube or in the vicinity of a boundary between said body part and said small-diameter part.

8. An egg freezing and storing instrument according to claim 6, further comprising an egg-collecting sucking tool having a connection part to which a rear end of said body part of said egg freezing and storing tube can be connected.

9. An egg freezing and storing instrument according to claim 6, further comprising an egg-collecting sucking tool including a connection part that can be connected to a rear end of said body part of said egg freezing and storing tube; a tube mounted on said connection part directly or indirectly; and a mouthpiece mounted on said tube.

10. A method for freezing and storing an egg by using an instrument for freezing and storing an egg which comprises an egg freezing and storing tube which is made of a liquid nitrogen-resistant material and can be heat-sealed and has a body part, an egg-storing small-diameter part having a smaller outer diameter than said body part, and a metal cylindrical protection member

mounted on said egg freezing and storing tube for protecting said egg freezing and storing tube and being slidable to a rear side of said egg freezing and storing tube to allow said small-diameter part to be exposed to the outside from a front end of said cylindrical protection member, and said egg freezing and storing tube has a slip-off prevention part for preventing said cylindrical protection member from slipping off from said egg freezing and storing tube,

wherein said method comprising the steps of:

preparing said egg whose intracellular fluid has been replaced with an equilibrium fluid and extracellular fluid has been replaced with a vitrified fluid;

exposing said small-diameter part of said egg freezing and storing tube to the outside by sliding said cylindrical protection member to a rear side of said egg freezing and storing tube;

collecting said egg into said small-diameter part of said egg freezing and storing tube, together with said vitrified fluid;

heat-sealing one side of said egg freezing and storing tube at a front portion of said small-diameter part which has collected said egg and heat-sealing the other side of said egg freezing and storing tube at a portion of said body part;

accommodating said small-diameter part of said egg freezing and storing tube in said cylindrical protection member by sliding said cylindrical protection member to a front side of said egg freezing and storing tube after said one side of said egg freezing and storing tube is sealed or both said one side of said egg freezing and storing tube and a portion of said body part are sealed; and

supplying said egg freezing and storing instrument into a liquid nitrogen tank.

11. A method for freezing and storing an egg by using an instrument for freezing and storing an egg which comprises an egg freezing and storing tube which is made of a liquid nitrogen-resistant material and can be heat-sealed and has a body part, an egg-storing small-diameter part having a smaller outer diameter than said body part, and a metal cylindrical protection member mounted on said egg freezing and storing tube for protecting said egg

freezing and storing tube and being slidable to a rear side of said egg freezing and storing tube to allow said small-diameter part to be exposed to the outside from a front end of said cylindrical protection member, and an egg-collecting sucking tool having a connection part to which a rear end of said body part of said egg freezing and storing tube can be connected, and said egg freezing and storing tube has a slip-off prevention part for preventing said cylindrical protection member from slipping off from said egg freezing and storing tube,

wherein said method comprising the steps of:

preparing said egg whose intracellular fluid has been replaced with an equilibrium fluid and extracellular fluid has been replaced with a vitrified fluid;

preparing a unit including said egg freezing and storing tube and said sucking tool mounted on a body part of said egg freezing and storing tube;

exposing a small-diameter part of said egg freezing and storing tube to the outside by sliding said cylindrical protection member to a rear side of said egg freezing and storing tube;

collecting said egg into said small-diameter part of said egg freezing and storing tube, together with said vitrified fluid by operating said sucking tool;

heat-sealing one side of said egg freezing and storing tube at a front portion of said small-diameter part and heat-sealing the other side of said egg freezing and storing tube at a portion of said body part with said sucking tool mounted on said egg freezing and storing tube;

accommodating said small-diameter part of said egg freezing and storing tube in said cylindrical protection member by sliding the cylindrical protection member to a front side of said egg freezing and storing tube after said one side of the egg freezing and storing tube is sealed or both said one side of said egg freezing and storing tube and a portion of said body part are sealed;

removing said sucking tool from said egg freezing and storing tube; and

supplying said egg freezing and storing tube on which said protection member has been mounted into a liquid nitrogen tank.